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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,503	01/10/2002	Daisaku Horie	15162/04240	9303

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EXAMINER

KASSA, YOSEF

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/044,503	Applicant(s) HORIE, DAISAKU	
	Examiner YOSEF KASSA	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/10/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Oura (U.S. Patent 6,128,416).

With regard to claim 1, Oura discloses an image input section (see Fig. 2, item 11) which inputs two adjacent images (note that the pick-up images are connected with each other), wherein the images partially overlap with each other (see Fig. 1, overlap region 3);

an overlap region determining section which determines an overlap region of the images (see col. 5, lines 3-9, the process of determine the common subjects as marks for overlapping region);

a first region determining section which determines a first region within the overlap region determined (see col. 5, lines 20-24);

a first pixel value, i.e., block 5 of Fig.1, determining section which determines a pixel value in the first region based on a pixel value of one of the two adjacent images (see col. 5, lines 9-13);

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a second pixel value, i.e., block 6 of Fig. 1, determining section which determines a pixel value in a second region within the overlap region based on respective pixel values of the two adjacent images, wherein the second region is a region of the overlap region other than the first region (see col. 5, lines 54-61, the process of determining an average density value of the blocks which reads on pixel value determining section); and

an image joining section, i.e., image composing, which join the two adjacent images with each other by utilizing the determined pixel value in the first region and the determined pixel value in the second region as pixel values in respective regions of the overlap region (see col. 5, lines 25-35, note that the composing of two image performed by determining the position of first and second reference blocks).

With regard to claim 2, Oura discloses wherein said first region determining section includes dividing means for dividing the overlap region into predetermined blocks (see col. 4, lines 64-67), and comparing, i.e., correlation, means for comparing the two images with respect to pixel values of the predetermined blocks, the first region being determined based on the result of the comparison by the comparing means (see col. 5, lines 25-30).

With regard to claim 6, Oura discloses wherein said second pixel value determining section determines a pixel value by weighted, i.e., calculated displacement amount, mean processing related with a position (see col. 5, lines 25-36 and col. 5, lines 54-62).

With regard to claim 7, Oura discloses wherein said first pixel value determining

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section includes judging means for judging which one of the two adjacent images is close to the determined first region when images are joined with each other (see col. 5, lines 1-6), the image which is judged to be closer being utilized as one of the images, the pixel value in the first region being determined based on the pixel value of the one image (see col. 5, lines 7-13).

With regard to claim 8, Oura discloses wherein said first pixel value determining section includes contrast comparing means for comparing the two adjacent images with respect to a contrast of pixels in the determined first region (see col. 5, lines 3-12), one of the images being determined based on a the result of comparison by the contrast comparing means, the pixel value in the first region being determined based on the pixel value of the one image (see col. 5, lines 25-32).

Claim 9 is similarly analyzed as claim 1, except claim 9 is a method claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oura (U.S. patent 6,128,416), and further in view of Xiong (U.S. Patent 6,359,617).

Claim 10 is similarly analyzed as claim 1. As to the additional limitation of "a program product for making a computer execute image processing", Oura does not

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expressly call for this limitation. It is well known in the art to use a program product for making a computer execute image processing on a plurality of captured images which partially overlap with each other. However, this feature is disclosed by Xiong (see col. 3, lines 54-62). At the time the invention was made, it would have been obvious to incorporate the teaching of Xiong's computer program system into Oura's system. The motivation for doing so is to provide a computer program for processing overlap images to correct misaligned images.

Claim Rejections - 35 USC § 101

3. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 recites the limitation "a program product for making a computer execute image processing..." which is non-statutory. A program is functional descriptive material, and is only statutory when embodied in a computer readable medium. Applicant may overcome this rejection by rewriting the limitation "a program product for making a computer execute image processing" as "A computer medium or a computer readable medium storing or comprising...." (See MPEP 2106).

Other Prior Art Cited

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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US Patent No. (6,549,681) to Takiguchi et al disclose image synthesization method.

US Patent No. (6,456,323) to Mancuso et al disclose color correction estimation for panoramic digital camera

US Patent No. (5,465,163) to Yoshihara et al discloses image processing method and apparatus for...

US Patent No. (5,602,584) to Mitsutake et al disclose apparatus for producing a panoramic image...

US Patent No. (5,469,274) to Iwasaki et al disclose image processing apparatus for combining differently corrected images.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communication and (703) 872-9306 for after Final communications.

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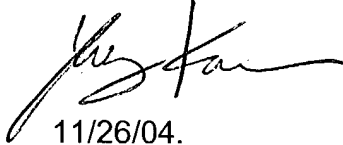
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PATENT EXAMINER

Yosef Kassa

A handwritten signature in black ink, appearing to read 'Yosef Kassa', is written over the printed name.

11/26/04.